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Mazdoor Kisan Shakti Sangathan

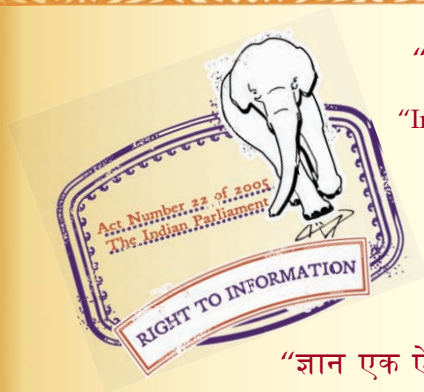
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“Step Out From the Old to the New”

IS 11510 (1985): Spindle for Jute Cop Winding Machine [TXD
14: Machinery for Fabric Manufacture]



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“Invent a New India Using Knowledge”



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

SPECIFICATION FOR
SPINDLE FOR JUTE COP WINDING MACHINE

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INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

SPECIFICATION FOR SPINDLE FOR JUTE COP WINDING MACHINE

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Indian Standard

SPECIFICATION FOR SPINDLE FOR JUTE COP WINDING MACHINE

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 10 December 1985, after the draft finalized by the Jute Mill Accessories and Jute Machinery Spare Parts Sectional Committee had been approved by the Textile Division Council.

0.2 This standard has been published in order to provide the guidance to the manufacturers of spindles for jute cop winding machines so that spindles of acceptable quality are available to the jute industry. This would ensure higher productivity due to better interchangeability of spindles in the winding machine and its smooth functioning.

0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the requirements of spindle for cop winding machine in a jute mill.

2. MANUFACTURE

2.1 Material — The spindle shall be manufactured from carbon steel designation 55C8 as per IS : 1570 (Part II)-1979†.

2.2 Finish — The spindle shall be ground finish. The tapering shall not exceed 1 in 100.

*Rules for rounding off numerical values (*revised*).

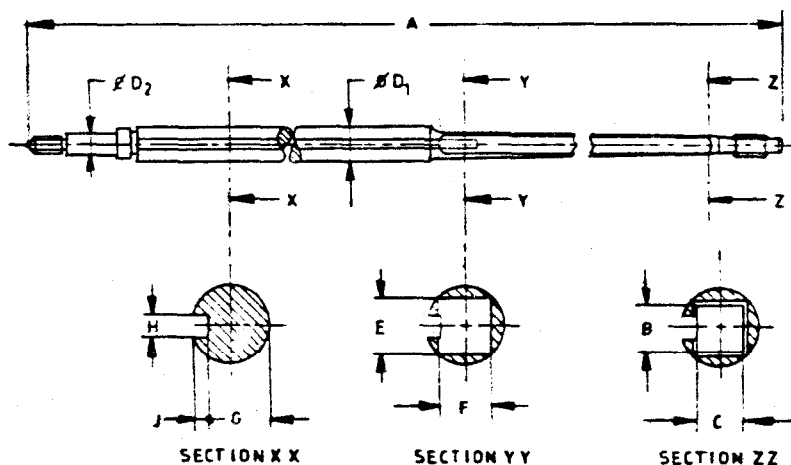
†Schedules for wrought steels: Part II Carbon steel (unalloyed steel) (*first revision*).

3. REQUIREMENTS

3.1 Dimensions

3.1.1 The nominal dimensions of the spindle shall be as agreed to between the manufacturer and purchaser or in the absence of any agreement, the nominal dimensions would be as declared by the manufacturer.

3.1.2 Tolerances — The dimensional requirements of the spindle shall be subject to the following tolerances (see Fig. 1).



Spindle Dimension

Tolerance in (mm)

A	± 0.75
B	± 0.05
C	± 0.05
ϕD_1	-0.025 -0.075
ϕD_2	$+0.00$ -0.01
E	± 0.05
F	± 0.05
G	-0.05 -0.10
H	$+0.10$ -0.00
J	$+0.05$ -0.00

FIG. 1 SPINDLE FOR JUTE COP WINDING MACHINE

3.2 Hardness — Spindle shall have hardness of 25 to 32 HRC.

3.2.1 Hardness shall be determined by method prescribed in IS : 1586-1968*.

3.3 Run-Out — The run-out of spindle shall not exceed 0.05 mm.

3.4 Eccentricity — The eccentricity of spindle shall not exceed .05 mm.

4. MARKING

4.1 Unless otherwise agreed between the buyer and manufacturer, each spindle shall be legibly marked with the manufacturer's name or trade-mark.

4.1.1 ISI Certification Marking — Spindles may also be marked with the ISI Certification Mark.

NOTE— The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

5. SAMPLING AND CRITERIA FOR CONFORMITY

5.1 Lot — In a consignment, all the spindles of the same type and manufactured under the same conditions shall constitute a lot.

5.1.1 For conformance of this specification, samples shall be drawn from the lot in accordance with Table 1.

TABLE 1 NUMBER OF SPINDLES TO BE SELECTED FOR SAMPLING

LOT SIZE	SAMPLE SIZE	ACCEPTANCE NUMBER	SUB-SAMPLE SIZE
(1)	(2)	(3)	(4)
Up to 150	8	1	2
151 „ 300	13	2	2
301 „ 500	20	3	2
501 „ 1 000	32	5	3
1 001 and above	50	7	3

*Method of Rockwell hardness test (B & C scales) for steel (first revision)

5.2 Number of Test

5.2.1 All the spindles in the sample shall be visually examined for material and finish.

5.2.2 For requirements given in **3.1**, **3.3** and **3.4** the spindles selected in the sample shall be tested. Hardness (**3.2**), shall be tested on the sub-sample given in col 4 of Table 1.

5.3 Criteria for Conformity

5.3.1 Whenever a spindle fails to meet any of the requirements given in **3.1**, **3.3** and **3.4** it shall be declared as defective. The lot shall be declared as conforming to the requirements of **3.1**, **3.3** and **3.4** if the number of defective spindles does not exceed the corresponding acceptance number; and for requirements of **3.2** none of the spindles tested on the sub-sample shall fail.

6. PACKING

6.1 Spindles shall be packed in such a way so as to ensure complete protection from rust and bending.